



Product Description

TECHNO CAST™ 3011 is a two-component, 100% solids, fast-curing polyurethane casting resin formulated for industrial jigs, flexible molds, and high-wear tooling applications.

Its low viscosity enables precise detail reproduction and easy casting, while the cured material forms a smooth, non-abrasive surface that will not scratch or damage acrylic, transparent plastics, or other delicate substrates.

Once cured, TECHNO CAST™ 3011 provides a waterproof, high-strength elastomer with excellent flexibility, tear resistance, and abrasion resistance, making it ideal for durable jig fabrication, industrial tooling, and mold production where toughness and surface protection are required.

CHARACTERISTICS

- Low viscosity
- High wear resistance
- Waterproof
- Flexible with high tensile/elongation & tear strength

APPLICATIONS

It is recommended to stir part **A** before adding part **B** prior to usage, due to settling in the containers.

Add **61** part **B** to **100** part **A** per **weight** and mix well, avoid air entrapment and pour slowly in adequately prepared moulds.

It is recommended to use a release agent such as **Techno Release 113** to facilitate demoulding operations.

Non cured material can be cleaned with the solvent **T-905**.

Please consult **POLYMERES TECHNOLOGIES** for more details based on your application.

TYPICAL PROPERTIES (at 22°C)

		PART A	PART B	MIXED
Viscosity	Brookfield (cps)	900	600	700
Consistency		Liquid	Liquid	Liquid
Density	g/cm ³	0.99	1.21	1.07
Mixing Ratio	1.	2	1	2/1
	2. By weight	100	61	100/61
Color		Colored	Clear yellow	Colored
Pot life		30 minutes		



Peak exothermic temp. (200 cc)	ASTM D 2471	68°C
Demoulding time		6-12 hours
Full cure	mass of 3.5 kg	7 days*

PHYSICAL PROPERTIES (solid state) 7 days after cure at 22°C

TEST	METHOD	RESULTS	
Hardness	ASTM D 2240 85	Shore A	90-95
Hardness @150°C-302°F after 30 minutes		Shore A	68-70
Tensile strength	ASTM D 638 TYPE IV	MPa [†]	8-10
Elongation at break	ASTM D 638 TYPE IV	%	≥400
Tear strength	ASTM D 624 DIE C	N/mm	30-40
Abrasion Resistance Taber	ASTM D 4060 Taber CS 17-1000 gr gm loss/1000 cycles		0.014
Water Absorption	ASTM D 570	%	0.26
Coefficient of Linear Thermal Expansion	ASTM D 696	mm/mm/°C	13.1 x 10 ⁻⁵

PRECAUTIONS

- Consult Material Safety Data Sheet prior to use.
- Ensure proper ventilation.
- Do not mix more material than it is possible to apply within the recommended pot life which is 20 minute.
- Do not apply at temperature lower than 13°C (55°F) and relative humidity higher than 80%, as some surface micro bubbling may occur.
- Shelf life of product in original closed containers is **one (1) year**. Keep partial containers of part B under dry nitrogen blanket.
- **RESEALING:** Many polymers are moisture sensitive, reseal, using one of the following two (2) methods: blanket with nitrogen or use a hair dryer for 30 seconds to cover with dry air.
- Once the container is opened **POLYMÈRES** has no control or responsibility for the shelf life.
- It is recommended to follow Provincial and Federal safety regulations. In case of eye contact, rinse well

* After material has solidified the curing process can be accelerated at 52°C (125°F).

† 1 MPa = 145 lb



POLYMÈRES
technologies

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with water, in case of skin contact, rinse with soap and water. Keep away from children.

GUARANTEE

Seller makes no warranty of any kind, express or implied, as to the merchantability, fitness for any particular purpose, or any other matter with respect to the product **3011**. Since conditions of use are beyond seller's control, buyer assumes all risk of use of this product. Under no circumstances will seller be liable for consequential or incidental damages arising out of the use of this product. Seller's sole obligation shall be to replace the product if found to be defective. It is the user's responsibility to determine the suitability for use of this product under the conditions present at the time of application. M.S.D.S. available upon request.